• COLORADO RIVER •

AQUEDUCT NEWS

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Vol. IX September 30, 1942 No. 9

District's Boulder Power Reserve Now Producing War Metal For U. S. Victory

On September 15 Secretary of the Interior Harold L. Ickes signed the contracts which put officially into effect an agreement whereby the Metropolitan Water District's unused Boulder Dam power is to be sold to the Defense Plant Corporation for a period of three years for use in the giant magnesium plant being operated near Las Vegas, Nevada, by Basic Magnesium, Inc.

Rated as the largest magnesium producing works in the United States, the Las Vegas plant will have the capacity to turn out 112,000,000 pounds of this strategic light war metal a year. Ten years ago the total production of magnesium in the United States amounted to less than one million pounds annually.

The plant was located in the Boulder Dam—Las Vegas area because there are large deposits of magnesite about 200 miles to the north, and the quantities of salt required in the process may be obtained from extensive deposits near Las Vegas. Satisfactory railroad facilities also serve the area. But the process being employed in the production of magnesium calls for tremendous quantities of electric energy and large supplies of water. Without these essentials this production process would be impossible. The determining factors, therefore, in the establishment of the plant were the existence of an enormous block of low cost Boulder Dam power and practically unlimited quantities of water from Lake Mead. Equally im-

(*Continued on Page 2*)

Aqueduct Meets Cities' Growing Water Needs

Recently completed compilations of the official reports of water production and use during the fiscal year 1941-42 in the thirteen cities that were within the boundaries of The Metropolitan Water District of Southern California throughout that period give increasing emphasis to the vital service rendered by the timely completion of the Colorado River Aqueduct.

During the twelve-month period ending June 30, 1942, water production and use within these thirteen cities reached an all-time high. The total average production increased 33 second feet over the previous year, amounting to 486.6 cubic feet per second as compared with 453.6 c.f.s. for the preceding year, or an increase of 7.3 per cent. It was the

(*Continued on Page 2*)

Natives of the desert country traversed by the Colorado River Aqueduct: From left to right and likewise west to east, they include: first, the Cholla, or jumping cactus, at the foot of Mount San Jacinto; second, Ocotillo and several types of cactus east of Shaver's Summit; third, the majestic Sahuaro, or giant cactus, with Monument Peak in the Copper Basin in view at upper left.

• COLORADO RIVER •
AQUEDUCT NEWS
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
306 West Third St.
Los Angeles, California

Published monthly in the interest of Field and Office Workers on the Colorado River Aqueduct, and for the information of all other citizens of the Metropolitan Water District.

VOL. IX SEPT. 30, 1942 No. 9

Will Help Win War

An editorial in the September 22 issue of the South Coast News of Laguna Beach points out the urgent need of Colorado River Aqueduct water service in the Orange County south coast area and particularly draws attention to the extraordinary demand for water to supply the needs of large military establishments in that territory. In conclusion the editorial states:

"The completion of the Metropolitan Water District aqueduct may well be one of the great factors in winning the war, in view of the huge demands for water imposed upon the southland not only by military establishments, but by the vast increase in defense plants and the defense worker population. A shortage of water here would immediately curtail the war effort at one of its vital centers."

Laguna Beach is a part of the Coastal Municipal Water District which several months ago was annexed to the Metropolitan Water District. General Manager Julian Hinds recently stated that encouraging progress is being made in the District's efforts to obtain Government approval of an Aqueduct pipe line extension that will deliver water to the south coast area.

Water Use Increasing

(*Continued from Page* 1)

first year in which the total production for all of the cities exceeded the 1929-30 peak. The production for that year amounted to an average of 467.51 c.f.s., from which it declined to 372.35 in 1934-35. Thus, water production in these District cities during the past fiscal year amounted to an average of 114.3 c.f.s., or about 75,000,000 gallons per day more than during the depression year of 1934-35.

Most spectacular increase in the use of water was recorded by the District city of Burbank, one of Southern Cali-

(*Continued on Page* 3)

Rainfall For Past Year Under Normal

Rainfall in Los Angeles County for the one-year period from October 1, 1941, to September 30, 1942, amounted to only 68 per cent of the average for this period, according to a report issued by the Los Angeles County Flood Control District.

The report states that there were 22 storms during the season with only two of the number showing any appreciable runoff of flood water. Both of these storms occurred in December, 1941.

It was further stated that the rainfall in the Santa Monica mountain area was 75 per cent, in the valley and coastal area, 72 per cent, in the desert area north of the San Gabriel mountains, 71 per cent, and in the San Gabriel mountains, 59 per cent of the average precipitation for the October to October periods of the past 68 years.

Power Reserve In Use

(*Continued from Page* 1)

portant was the fact that there was a large amount of Boulder Dam power actually available for immediate use.

Action of the Metropolitan Water District taken some twelve years ago made this large block of Boulder Dam power available for instant use in these war days of 1942. It came about in this way:

Congress had passed the Boulder Canyon Project Act authorizing the construction of Boulder Dam, but the law required the Secretary of the Interior to obtain firm contracts for the sale of Boulder Dam energy sufficient in their revenue yield to the Government to repay the full cost of the dam and power plant, with interest, within a period of fifty years. Not until such contracts were obtained could work on the dam be started. In 1930 the District joined with the cities of Los Angeles, Burbank, Glendale and Pasadena, and several private power companies, and together these agencies contracted to take and pay for definite portions of the power available for development at Boulder Dam. Having obtained these contracts, the Secretary of the Interior went forward with the building of the dam and power plant.

The District in its contract with the Government agreed to take and pay for approximately 35 per cent of the firm power generated at Boulder. The power would be required by the District to operate the Colorado River Aqueduct pumping plants that lift the water over the mountain barriers standing between the river and the District cities.

But only a fraction of the District's power allotment is required in these early years of the aqueduct's operation. This large block of Boulder Dam energy contracted for by the District but not presently required for aqueduct operation is, in effect, a huge and valuable power reserve. It is a power reserve that has been made immediately available for the war use of the Federal Government. To make this reserve even more effective, a large part of the capacity of the District's two 82,500 kilowatt generators already installed at Boulder also has been made available for use by the magnesium plant. One additional generator is to be installed. The remainder of the magnesium plant's power requirements are to be supplied from Nevada's energy allotment and from Parker Dam.

Parker Dam was constructed by the U. S. Bureau of Reclamation with funds supplied by the Metropolitan Water District, and the District has a one-half interest in the power to be generated at the Parker power plant. This plant, now being completed, is scheduled to start operating the first of its four generating units in November.

The contracts signed by the Secretary of the Interior are made effective as of May 9 of this year. Under this agreement the Defense Plant Corporation agrees to buy and pay for 3,375,000,000 kwhr of the District's unused firm Boulder Dam energy during the period ending May 31, 1945. The rate to be paid is the current rate for firm energy at Boulder Dam, now fixed at 1.172 mills per kwhr, plus generating charges computed in accordance with the general regulations for sale of Boulder power.

During the period the Defense Plant Corporation purchases power for use in the magnesium plant the District will be relieved of practically all charges for unused energy, and there will be a substantial reduction of its generating charges at Bouder Dam. Total credits to the District for the three years covered by the agreement will amount to about $5,000,000.

Representing the District in the negotiations leading to the new power contract with the Government were Board Chairman W. P. Whitsett, Director Otto J. Emme, Director Joseph Jensen, General Manager Julian Hinds, General Counsel James H. Howard and Chief Electrical Engineer James M. Gaylord.

• MONTHLY REPORT •

(EDITOR'S NOTE: The following is a brief summary of some of the activities of the District as set forth in the monthly report of General Manager Julian Hinds, filed with the Board of Directors in September, 1942, covering work done in August.)

Construction

Parker Power Plant—The assembly of Unit No. 1 in the power house by Bureau of Reclamation forces is nearing completion. The penstock trash racks were set in place and work was in progress on the switch yard equipment.

Orange County Feeder Extension — Field surveys and investigations were continued, and in the office preparation of plan profile drawings was under way. On August 17, 1942, notice was received that the application for project rating for the construction of the line was not granted by the War Production Board. Data were assembled for submitting a revised application early in September.

Eagle Rock Chlorination Station — Construction of the chlorination building was completed and the equipment is being installed by District forces.

Operation and Maintenance

General — The transmission system was taken out of service for 10 hours on August 16th and 10 hours on August 30th, to enable Basic Magnesium, Inc. to connect its second transmission line in permanent position on the District switch rack at Boulder. The Southern California Telephone Company completed installation of telephone equipment at Iron Mountain for Army service. Emergency patrol and guard service were maintained by the State Guard. All water delivery points installed for the Army along the main aqueduct are in use.

Design — Details were prepared for equipment to be installed in the Eagle Rock chlorination station. Drawings were reviewed of an additional connection by the City of Los Angeles to the Palos Verdes feeder, and of a proposed flood control channel crossing over the upper feeder near Fontana.

Parker Dam—The water level in Lake Havasu varied between a high elevation of 421.6 on August 1st and a low of 415.1 on August 27th, being below the level at which Intake pumps can be operated. The average discharge of the Colorado River at this point for the month was 14,325 c.f.s.

Main Aqueduct — General maintenance of sand traps, canals and siphons was continued and standing water was treated with copper sulphate as necessary.

Pumping Plants—Water was released from Copper Basin reservoir to supply Army training centers along the aqueduct, the Iron Mountain, Eagle Mountain and Hayfield pumps being operated as required. Routine maintenance work was carried on at the pumping plants and camps, along the telephone and transmission lines and on the patrol roads.

Distribution System—General maintenance of the reservoir areas was continued, including water sampling and recording of weather and other data. On August 31, 1942, water surface in Lake Mathews was at elevation 1338.74 with 73,772 acre feet in storage. At the Softening and Filtration Plant routine operation and laboratory analytical work were continued. The Long Beach lateral was flushed and delivery of a small quantity of water was started on August 17. This is the first delivery of Colorado River water to the City of Long Beach.

Hydrographic—Meetings of the Colorado River Board of California were attended and aid was given in study and discussion of engineering phases of the proposed treaty with Mexico insofar as it concerns Colorado River water. Discharge at Boulder varied between 15,258 and 9,932 c.f.s. and averaged 13,759 c.f.s. The California Division of Water Resources was furnished extensive data on wells in the San Jacinto watershed.

Employment — During August, 25 classified positions were filled, 13 by transfer, 10 by new employment and 2 by temporary employment. There were recorded 8 terminations, 7 extended military leaves, 13 changes of status, 13 employment contracts and 64 interviews.

Right of Way—Two reverse leases were cancelled. There are now in effect 3 leases, 30 reverse leases and 12 rentals. In the citrus groves 4060 boxes of Valencia oranges were picked, the third irrigation of the season was completed.

Purchasing and Salvage—There were issued during the month 200 purchase orders aggregating $5,290.00. Freight forwardings were 32 cars of salt and 2 of other chemicals to the softening plant. Cash salvage sales for the month amounted to $17,495.79. The appraised value of salvage stock on hand at the end of the month was $402,523.64.

Water Use Increasing

(*Continued from Page* 2)

fornia's great aircraft manufacturing centers. During the year 1941-42 the use of water in Burbank increased 34 per cent over the preceding year; durthe past two years water consumption increased 67 per cent; while its use during 1941-42 was 260 per cent greater than during 1934-35.

In Fullerton the increase in use of water for the year 1941-42 amounted to 20 per cent over the preceding year, and 105 per cent over the year 1934-35.

In Compton the use of water during the past fiscal year increased 17 per cent over the preceding year, and was 114 per cent greater than during 1934-35.

Long Beach is another war production area which recorded a marked increase in use of water. Here the increase in water production for 1941-42 over the preceding year amounted to 13 per cent, and was 39 per cent greater than during 1934-35. In August of this year Long Beach began the regular use of Colorado River Aqueduct water to supplement its local supply and meet its increasing needs.

Anaheim also used 13 per cent more water in 1941-42 than during the preceding year, and 47 per cent more than during 1934-35. In Torrance the increased use over the preceding year was 7.5 per cent, slightly above the all-District average of 7.3 per cent, and was 74 per cent above the quantity used in 1934-35.

Total use of water in Los Angeles during the past fiscal year amounted to an average of 364.5 c.f.s., or an increase of 7.5 per cent over the preceding year, and 25 per cent over 1934-35. In Los Angeles the July, 1942 peak of 636 c.f.s. was 92 c.f.s., or 17 per cent, above the July, 1941 peak.

A basicly important factor in providing an always dependable as well as an abundant water supply for the District cities is the fact that they may now obtain their water from different and widely separated sources. Los Angeles, for example, now is able to draw upon four water supply sources, namely, the Owens River Aqueduct, the Los Angeles river galleries, underground reserves in San Fernando Valley and other parts of the city, and the ever ready supply from the Colorado River Aqueduct. During the peak demand period of the past summer, Los Angeles took water from the Colorado River to meet the requirements of a portion of the city.

NEWS FROM FIELD AND OFFICE

From Owen Maier, "somewhere in Northern Ireland" there came recently to former associates in the District's Los Angeles offices an interesting and most welcome letter. Owen resigned from his position in the Controller's office several months ago and together with Ray Osgood, Lester Taylor and Doug Fagg, all former Aqueducters, entered the foreign service of an American airplane company.

Signed up to enter the service of the U. S. Navy as a Sanitary Engineer in the Bureau of Yards and Docks at Washington, D. C., is Russell C. Kenmir, formerly with the District's Distribution Division and more recently engaged in engineering work with the J. M. Montgomery Co.

An official notice makes it clear that Donald Keith has won two promotions in rank since entering the Army in April, 1941. He is now to be addressed as follows: Lieut. Col. Donald Keith, Port of Embarkation, New Orleans, La. Formerly an attorney in the District's Legal Division, he entered the Army as a Captain and was first assigned to duty in the office of the Judge Advocate General, Washington, D. C.

BULL'S EYE

Headquarters office employees of the Metropolitan Water District and four other employee groups of the organization have won the proud honor of flying Minute Man Flags. This means that over 90 per cent of the employees have subscribed to the payroll deduction plan for the purchase of War Bonds. The other employee groups participating more than 90 per cent are: Banning office, Eagle Mountain pumping plant, Softening and Filtration plant and Pumping Plant Transmission line. The Transmission crews, in fact, are participating 100 per cent.

With a little more help from a few stragglers the Aqueducters will be subscribed 100 per cent with 10 per cent, or better, of the total payroll going into Bonds for Victory.

Out on the far and wide reaches of the Colorado River desert country traversed by the Aqueduct, endless columns of thunder wagons these days are swirling over sand dunes, mountain ridges and rock-studded ravines as Red and Blue armies of armoured warriors work out their battle problems. Aqueduct operating and maintenance forces are beginning to understand what is meant by "No Man's Land".

Word comes that B. C. (Mike) Leadbetter, the District's General Superintendent whose world beating hard rock miners drove through the San Jacinto tunnel on the Aqueduct, is scheduled to return to Southern California in the near future. For the past two years he has been directing the construction of powder plants in West Virginia and Wisconsin and whipping into shape a large war project in Arizona.

George Guyer, formerly with the Mails and Files Division and now a cadet in the Navy Air Force, recently dropped in for a visit with old District pals while on a short leave.

"Water for War". That means water in plenty to supply and to protect great and growing war factories, mills and shops. It means a first quality water, soft and filtered, for war worker homes. It means water, abundant and dependable, for ever-expanding military and naval establishments. It means water from the Colorado River Aqueduct of the Metropolitan Water District.

An important date to remember: November 1. That's the deadline for mailing Christmas packages to our men and women overseas.

Here are some of the Metropolitan Water District men now in the armed forces of the United States: (Upper row, left to right) Major Lynn Davis Smith, Army; Captain Charles J. Brandt, Army; Private George G. Henderson, Army; Captain M. Sigsbee Dunlap, Army; Lieutenant (j.g.) James Ketner III, Navy; Lieut. Col. Donald Keith, Army. (Lower row, left to right) Lieutenant William A. Farner, Navy; Carpenter's Mate, 1st Class, Rufus S. Fee, Navy; Sergeant Walter R. Napier, Army; Officer Cadet Walter S. Parker, Army; Lieut. Commdr. E. A. Russell, Navy; Private Jack R. Bickford, Army.